

ALASKA INJURY FACTS



Division of Public Health
Department of Health & Social Services

No. 2, Children's Injury Disparities in Alaska
May 2003

A Review of What We Mean by "Disparities"

"Disparities" are "differences that occur by gender, race or ethnicity, education or income, disability, living in rural locations or sexual orientation." (*Healthy People 2010*) Conceptually, "disparities" can be separated into "unavoidable" and "potentially avoidable" disparities. Many potentially avoidable disparities are deemed to be unacceptable or unfair, especially when they are related to unequal access to information or care.

Disparities in suicide rates demand attention. Alaska youth are nearly four times more likely than youth 0-19 nationwide to commit suicide, and the mortality rate from unintentional injuries is about 50% higher for Alaska than it is for the US, for youth. Homicide rates are just slightly higher in Alaska.

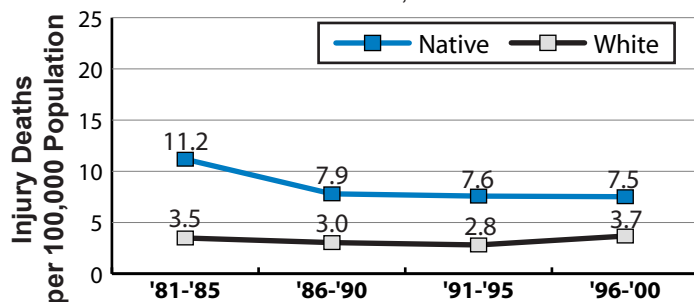
Injury Death Rates (per 100,000)
Among Youth (0-19)
Alaska vs. US, 1996-2000

| | Alaska | US | Rate Ratio |
|----------------------|--------|------|------------|
| Unintentional Injury | 24.7 | 16.3 | 1.5 |
| Suicide | 9.3 | 2.6 | 3.6 |
| Homicide | 5.1 | 4.7 | 1.1 |

Good News¹

One encouraging trend in youth injuries is the gradual decrease in the Native-to-White disparity among homicide death rates.

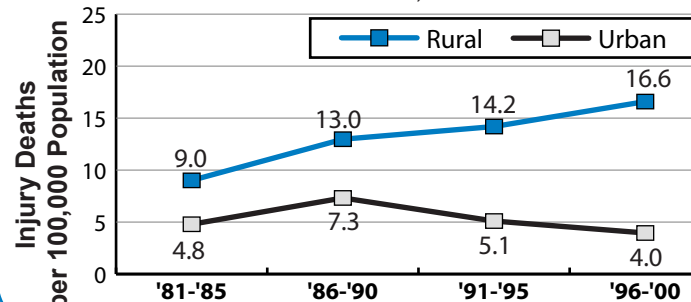
Trends in Homicide Rates:
Racial Disparities among Youth (0-19)
Alaska Residents, 1981-2000



Bad News¹

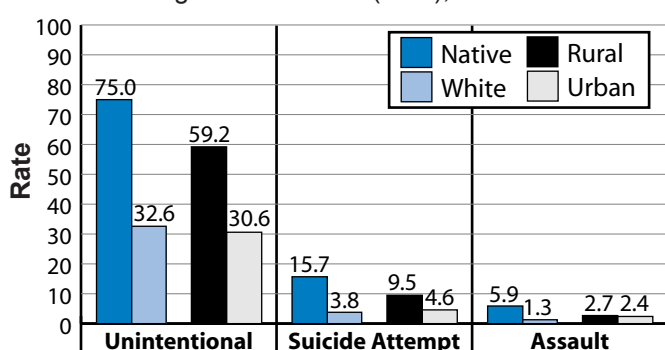
As this graph shows, the rural-to-urban disparity in youth suicide death rates has been steadily increasing over the last 20 years. A similar pattern exists in the racial disparity (Native-to-White) in youth suicide rates.

Trends in Suicide Rates:
Regional Disparities among Youth (0-19)
Alaska Residents, 1981-2000



Injuries Resulting in Hospitalization

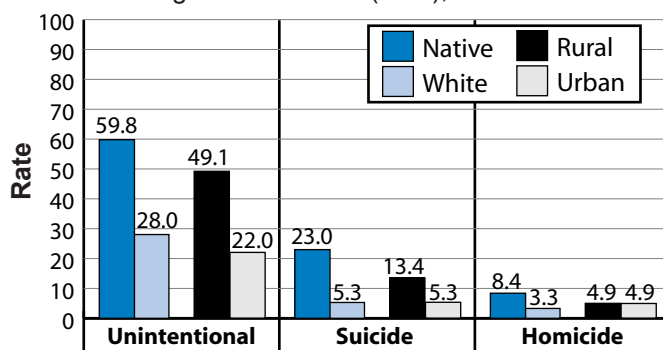
Racial and Regional Disparities in
Injury Hospitalization² Rates (per 10,000 population)
Among Alaskan Youth (0-19), 1994-1999



- Alaska Native youth are 2.3, 4.1, and 4.5 times more likely than White youth to be hospitalized for unintentional injuries, suicide attempts, and assault injuries, respectively.
- Youth living in more rural areas of the state are about twice as likely as those living in Anchorage, Fairbanks, or Juneau to be hospitalized for unintentional injuries or suicide attempts.

Injuries Resulting in Death

Racial and Regional Disparities in
Injury Death Rates¹ (per 100,000 population)
Among Alaskan Youth (0-19), 1981-2000



- Alaska Native youth are 2.1, 4.3, and 2.6 times more likely than White youth to die from unintentional injuries, suicide, or homicide, respectively.
- Rural youth are more than twice as likely as their urban peers to die from unintentional injuries or suicide.

Healthy Alaskans 2010 and Injury Disparities among Youth

Healthy Alaskans 2010 (Alaska's current health plan) set the following targets for Alaskan youth:

- Reduce deaths caused by unintentional injury for children aged 0-19 from 15.1 per 100,000 in 1999. Alaska Native youth mortality rate of 36.1 from these causes in 1999 was more than double the statewide rate. **Healthy Alaskans 2010 Targets: 9.9 per 100,000, and Eliminate Disparity**
- Reduce hospitalizations due to nonfatal unintentional injuries for children aged 0-19 from 44.0 per 10,000 population. **Healthy Alaskans 2010 Targets: 35.0 per 10,000, and Eliminate Disparity**
- Increase the percent of children aged 5-15 who use bicycle helmets when riding a bicycle, from 43% in 1998. **Healthy Alaskans 2010 Targets: 50%, and Eliminate Disparity**

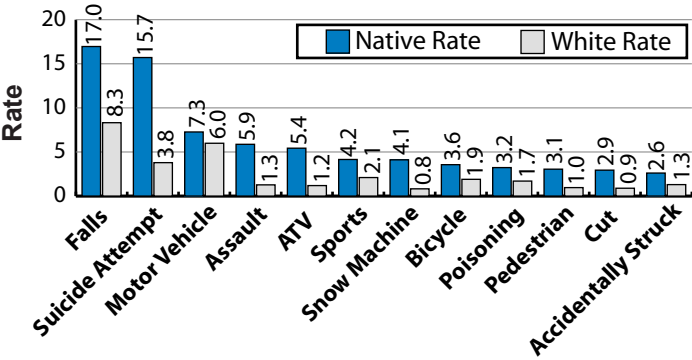
Hospitalizations

Deaths

Measures of Disparity

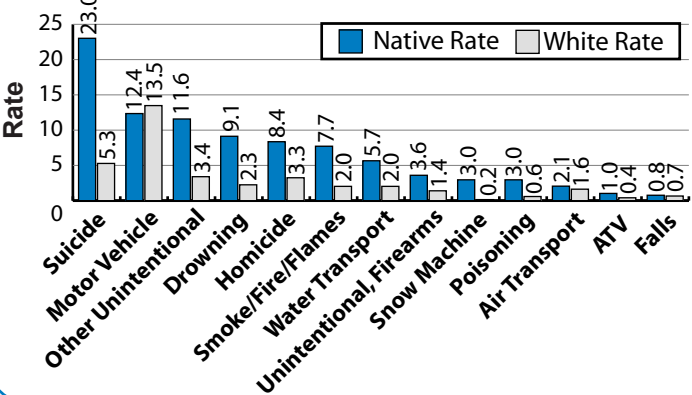
“Rate ratios” and “rate differences” are commonly-used measures of health status disparities between groups. The **rate ratio (RR)** is the ratio of two rates, usually the rate for the minority group over the rate for the reference group. The RR may suggest a very large disparity when an outcome is rare, as a few additional cases in one group greatly influence the size of the *ratio* of the rates. The **rate difference (RD)**, or the difference between two rates, highlights large differences in the burden of disease or death on the population. The RD will tend to indicate large disparities in outcomes with higher overall rates, so that even a relatively small rate ratio can reflect a large number of affected individuals.

Injury Hospitalization Rates² by Race and Cause (per 10,000) Alaskan Youth (0-19), 1994-1999



- Hospitalization rates for Alaska Native youth are more than four times the rates for White youth for four specific causes of injury: snow machine (RR=5.0), ATV (RR=4.6), assault (RR=4.6) and suicide attempt (RR=4.2).
- Rate differences are largest for suicide attempt (RD=11.9), falls (RD=8.6), assault (RD=4.6), and ATV (RD=4.2).

Injury Death Rates¹ by Race and Cause (per 100,000) Alaskan Youth (0-19), 1981-2000

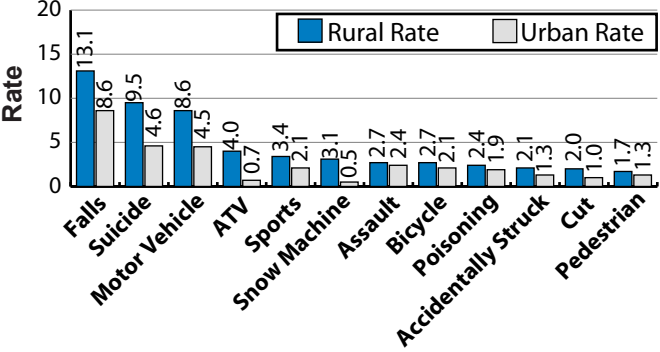


- Death rates for Alaska Native youth are more than four times the rates for White youth for four specific causes of injury: snow machine (RR=19.7), poisoning (RR=5.0), suicide (RR=4.4), and drowning (RR=4.1).
- Rate differences are largest for suicide (RD=17.7), drowning (RD=6.9), smoke/fire/flames (RD=5.7), and homicide (RD=5.1).

Rural / Urban Comparisons

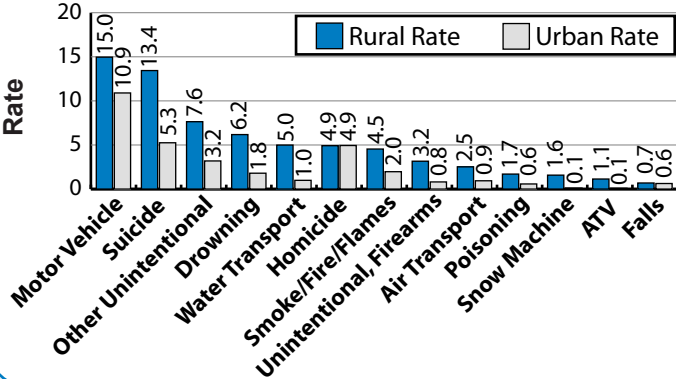
For an overview of geographic injury disparities, this fact sheet uses the term “urban” to refer to the three largest population centers and their borough areas – Anchorage, Fairbanks and Juneau – to contrast to the rest of the state, which is referred to as “rural”. Besides ATV and snow machine injuries and deaths (and for deaths, also water transport, drowning and fire), suicides and suicide attempts, and falls, are more frequent causes of injury for rural residents than for urban residents. The data presented below can help identify priority areas for prevention planning.

Injury Hospitalization Rates² by Region and Cause (per 10,000) Alaskan Youth (0-19), 1994-1999



- Hospitalization rates for rural youth are more than four times the rates for urban youth for both ATV (RR=6.1) and snow machine injuries (RR=6.4).
- Rate differences are largest for suicide attempt (RD=5.0), falls (RD=4.5), and motor vehicle (RD=4.1).

Injury Death Rates¹ by Region and Cause (per 100,000) Alaskan Youth (0-19), 1981-2000



- Death rates for rural youth are more than four times the rates for urban youth for three specific causes of injury: ATV (RR=12.7), snow machine (RR=12.1), and water transport (RR=5.0).
- Rate differences are largest for suicide (RD=8.2), drowning (RD=4.4), motor vehicle (RD=4.1) and water transport injury (RD=4.0).

Data Source: ¹Alaska Bureau of Vital Statistics ²Alaska Trauma Registry (Note: All data refer to Alaska residents)

Injury Resources

- WISQARS www.cdc.gov/ncipc/wisqars
- Community Health & EMS Injury Prevention Program chems.alaska.gov/ems_injury_prevention.htm
- Alaska Injury Prevention Center www.alaska-ipc.org
- Harborview Injury Prevention and Research Center depts.washington.edu/hiprc/childinjury/